IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Hestenes et al.
Serial No.: 09/609,106
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Group No.:
Examiner:

For: System for Encoding and Manipulating Models of Objects

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PRELIMENARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please enter this amendment before examining the application.

In the Claims

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1. A method for modeling an object composed of one or more components, comprising:

inputting data for each component of the object, the data including [Cartesian] coordinates expressed in Euclidean space [of] for a plurality of points **x** of each component;

encoding each point **x** as a <u>null</u> vector x in a [general] homogeneous space by $x = (\mathbf{x} + \frac{1}{2}\mathbf{x}^2 e + e_*)E = \mathbf{x}E - \frac{1}{2}\mathbf{x}^2 e + e_*$, where e and e_* are [basis] null vectors